Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) A link writing method for a recordable or rewritable optical disk comprising:

recording an interrupted position by storing values of an interrupted sector, an interrupted data frame, and an interrupted bit count when data under-run or other interruption occurs and enabling a succeeding writing process after the writing interruption, the succeeding writing process comprising:

positioning a linking area in accordance with the values of the interrupted sector, the interrupted data frame, and the interrupted bit count;

enabling a start writing signal; and

activating a laser power, wherein the linking area is linked to the interrupted position but is allowed to precede or be spaced from the interrupted position so that the interrupted data together with successively written data can be successfully error-correction processed.

2. (Withdrawn) The method of claim 1, wherein the positioning the linking area comprises:

reading the values of the interrupted sector, the interrupted data frame, and the interrupted bit count of the interrupted position;

setting a linking position, including starting sector, starting data frame and starting bit count;

searching the interrupted sector area by counting a sector SYNC signal to the starting sector;

searching the interrupted data frame by counting an EFM SYNC signal to the starting frame; and

searching the interrupted bit count by counting an EFMCLK pulse signal to the starting bit count.

3. (Withdrawn) The method of claim 2, wherein the starting sector, the starting data frame, and the starting bit count are set according to the interrupted sector, the interrupted data frame, and the interrupted bit count.

4. (Withdrawn) The method of claim 3, wherein an area length corresponding to a laser power settling time is subtracted from both the interrupted position and the linking position.

5. (Withdrawn) The method of claim 1, wherein the positioning the linking area comprises:

reading the values of the interrupted sector, the interrupted data frame, and the interrupted bit count of the interrupted position;

setting a linking position, including starting sector and starting bit count;

searching the interrupted sector by comparing an ATIP time code with the starting sector; and

searching the interrupted bit count by counting an EFMCLK pulse signal to the starting bit count.

6. (Withdrawn) The method of claim 5, wherein a value of the starting bit count is set to be a written bit count of the interrupted sector.

7. (Currently amended) A link writing method for a recordable or rewritable optical disk comprising:

recording an interrupted position by storing values of an interrupted sector, an interrupted data frame, and an interrupted bit count when data under-run or other interruption occurs; and

enabling a succeeding writing process after the writing interruption, the succeeding writing process comprising:

searching a linking area ~~by comparing a read data length with~~ with a read data pattern having a run length greater than a maximum run-length value;

enabling a start writing signal; and

activating a laser power, wherein the linking area is linked to the interrupted position so that an interrupted data frame portion and a ~~together with~~ successively written data frame portion together form an interrupted and successively written data frame that can be successfully error-correction processed.

8. (Previously presented) The method of claim 7, wherein the searching the linking area comprises:

reading values of the interrupted sector, the interrupted data frame, and the interrupted bit count of the interrupted area;

setting values of a starting block, a starting data frame, a starting bit count of a writing starting area, and the maximum run-length value; and

detecting where the read data length is greater than the maximum run-length value and setting the linking area in response thereto.

9. (Previously presented) The method of claim 8, wherein the writing starting area is set according to the interrupted position and the maximum run-length value so as to maintain the data frame with a same length.

10. (Previously presented) The method of claim 8, further comprising writing a section of low reflectivity pattern data following the interrupted position, wherein a length of the low reflectivity pattern data is greater than the maximum run-length value.

11. (Previously presented) The method of claim 8, further comprising writing a section of high reflectivity pattern data following the interrupted position, wherein a length of the high reflectivity pattern data is greater than the maximum run-length value.

12. (Withdrawn) An optical disk drive having a link writing function, comprising:

a sub-code decoder for providing block SYNC signal and reproduced time code information while reading from a disk;

a SYNC pattern decoder for providing EFM SYNC signal while reading from the disk;

an encoding link controller for positioning a link area and generating a succeeding writing signal; and

a microcontroller for receiving the succeeding writing signal of the encoding link controller and starting a succeeding writing process; and

a laser responsive to the succeeding writing signal, the laser powered in a succeeding writing process to provide laser power to an optical disk at a position corresponding to data written prior to a data writing interruption, thereby exposing previously written data.

13. (Withdrawn) The drive of claim 12, wherein the link area is positioned by the encoding link controller according to the block SYNC signal, the EFM SYNC pattern signal, and an EFMCLK pulse signal.

14. (Withdrawn) The drive of claim 12, wherein the encoding link controller detects an area where a data length is greater than a maximum run-length value to use the area as the linking area.

15. (Withdrawn) An optical disk drive having a link writing function, comprising:

an encoding link controller for positioning a link area for a succeeding writing and generating a succeeding writing signal;

a microcontroller for receiving the succeeding writing signal of the encoding link controller and initiating a succeeding writing process; and

a laser responsive to the succeeding writing signal, the laser powered in a succeeding writing process to provide laser power to an optical disk at a position corresponding to data written prior to a data writing interruption, thereby providing an overlap area.

16. (Withdrawn) The drive of claim 15, further comprising an ATIP decoder for providing an ATIP time code while reading data from a disk; wherein the link area is positioned by the encoding link controller according to the ATIP time code and an EFMCLK pulse signal.

17. (Withdrawn) The drive of claim 15, wherein the overlap layer is set to a length corresponding to a laser power settling time.

18. (Withdrawn) The method of claim 1, wherein the interrupted and successively written data frame is such that the data frame can be successfully CIRC processed.

19. (Previously presented) The method of claim 7, wherein the interrupted and successively written data frame is such that the data frame can be successfully CIRC processed.

20. (Withdrawn) The drive of claim 12, wherein the laser writes an interrupted data frame portion and a successively written data frame portion that together form an interrupted and successively written data frame that can be successfully CIRC processed.

21. (Withdrawn) The drive of claim 15, wherein the laser writes an interrupted data frame portion and a successively written data frame portion that together form an interrupted and successively written data frame that can be successfully CIRC processed.

22. (Currently amended) An optical disk drive having a link writing function, comprising:

an encoding link controller for positioning a link area for a succeeding writing and generating a succeeding writing signal; and

a laser responsive to the succeeding writing signal, the laser powered in a succeeding writing process to provide laser power to an optical disk at a ~~successive writing~~ position spaced from an end of data written prior to a data writing interruption by ~~an amount equal to or~~ at least a pattern having a run length greater than a maximum run length value of the drive,

~~the~~ wherein a laser writing interrupted data ~~frames~~ frame portion and a successively written data ~~frames~~ frame portion together form an interrupted and successively written data frame that can ~~together~~ be successfully error-correction processed.

23. (Currently amended) A link writing method for a recordable or rewritable optical disk comprising:

determining an interrupted position corresponding to a writing interruption for an optical disk; and

enabling a succeeding writing process after the writing interruption, the succeeding writing process comprising:

searching a linking area ~~by comparing a read data length with~~ with a read data pattern having a run length greater than a maximum run-length value;

enabling a start writing signal; and

activating a laser power, wherein the linking area is linked to the interrupted position so that an interrupted data ~~frames~~ frame portion and a successively written data ~~frames~~ frame portion together form an interrupted and successively written data ~~frames~~ frame that can be successfully error-correction processed.

24. (Previously presented) The method of claim 23, wherein the searching the linking area comprises:

setting values of a starting block, a starting data frame, a starting bit count of a writing starting area according to the values of the interrupted sector, the interrupted data frame, the interrupted bit count of the interrupted area, and the maximum run-length value; and

detecting where the read data length is greater than the maximum run-length value and setting the linking area in response thereto.

25. (Previously presented) The method of claim 24, further comprising storing values of an interrupted sector, an interrupted data frame, and an interrupted bit count when the writing interruption occurs.

26. (Previously presented) The method of claim 25, wherein the writing starting area is set according to the interrupted position and the maximum run-length value so as to maintain the data frame with a same length.

27. (Previously presented) The method of claim 25, further comprising writing a section of low reflectivity pattern data following the interrupted position, wherein a length of the low reflectivity pattern data is greater than the maximum run-length value.

28. (Previously presented) The method of claim 25, further comprising writing a section of high reflectivity pattern data following the interrupted position, wherein a length of the high reflectivity pattern data is greater than the maximum run-length value.

29. (Previously presented) The method of claim 23, wherein the interrupted and successively written data frame is such that the data frame can be successfully CIRC processed.

30. (Currently amended) An optical disk drive device having a link writing function, comprising an encoding link controller, responsive to a data writing

interruption and a successive determination that data writing can resume, the encoding link controller detecting a pattern from signals read from a disk indicative of the end of a previous interrupted data writing, the pattern ~~characterized by being detectable as being different from~~ having a run length greater than a maximum run length value of normally written data, the encoding link controller generating a start writing signal in response to detecting the pattern so that the device subsequently initiates a succeeding writing process in response to the start writing signal.

31. (Previously presented) The device of claim 30, further comprising a microcontroller coupled to the encoding link controller, the microcontroller initiating the succeeding writing process in response to the start writing signal.

32. (Previously presented) The device of claim 30, wherein the device initiates writing the pattern onto the disk after the data writing interruption.

33. (Previously presented) The device of claim 32, wherein the pattern consists of high reflectivity pattern data having a length greater than a maximum run length value.

34. (Previously presented) The device of claim 33, wherein the disk is rewritable.

35. (Previously presented) The device of claim 32, wherein the pattern consists of low reflectivity pattern data having a length greater than a maximum run length value.

36. (Previously presented) The device of claim 35, wherein the disk is rewritable.